## FILE 'HOME' ENTERED AT 15:07:03 ON 01 JUN 2009

=> FIL REGISTRY

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
0.22
0.22

FILE 'REGISTRY' ENTERED AT 15:07:34 ON 01 JUN 2009 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2009 American Chemical Society (ACS)

Property values tagged with IC are from the  ${\tt ZIC/VINITI}$  data file provided by InfoChem.

STRUCTURE FILE UPDATES: 31 MAY 2009 HIGHEST RN 1151391-70-6 DICTIONARY FILE UPDATES: 31 MAY 2009 HIGHEST RN 1151391-70-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

E1 1 CARBOXYFERROCENE/CN E2 1 CARBOXYFLUORESCEIN/CN E3 0> CARBOXYFLUORESCEIN/CN E4 1 CARBOXYGERMANE/CN E5 1 CARBOXYHEMOGLOBINS/CN E6 1 CARBOXYHEMOGLOBINS/CN E6 1 CARBOXYHEMOGLOBINS/CN E7 1 CARBOXYHEXAHYDRO-4-METHYL-1H-PYRROLIZINIUM IODIDE/CN E7 1 CARBOXYHEXAHYDRO-4-METHYL-1H-PYRROLIZINIUM IODIDE/CN E8 1 CARBOXYHEXAHYDRO-4-METHYL-1H-PYRROLIZINIUM IODIDE/CN E8 1 CARBOXYHOMOYESSOTOXIN/CN E8 1 CARBOXYHOMOYESSOTOXIN/CN E9 1 CARBOXYHOMOYESSOTOXIN/CN E10 1 CARBOXYHOMOYESSOTOXIN/CN E11 1 CARBOXYHOMOYESSOTOXIN/CN E11 1 CARBOXYKINASCICAM/CN E12 1 CARBOXYKETENE/CN E13 1 CARBOXYKETENE/CN E14 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE/CN E15 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE/CN E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (162-TYROSINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN CACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN  E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN	=> E "CARBOXYFLUOR	ESCEIN DIACETATE SUCCINAMIDE ESTER"/CN 25
E3 0> CARBOXYFLUORESCEIN DIACETATE SUCCINAMIDE ESTER/CN  E4 1 CARBOXYGERMANE/CN  E5 1 CARBOXYHEMOGLOBINS/CN  E6 1 CARBOXYHEXAHYDRO-4-METHYL-1H-PYRROLIZINIUM IODIDE/CN  E7 1 CARBOXYHEXAHYDRO-4-METHYL-1H-PYRROLIZINIUM IODIDE/CN  E8 1 CARBOXYHDROGUINONE/CN  E9 1 CARBOXYHDROGUINONE/CN  E10 1 CARBOXYHFOSFAMIDE/CN  E11 1 CARBOXYIFOSFAMIDE/CN  E12 1 CARBOXYKEINASE (ATP) (YERSINIA PESTIS STRAIN CO92 GENE YPO0138)/CN  E14 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (NETYROSINE)  (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN  E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN  E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE)  (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN  E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN  E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN  E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN  E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN  E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN  E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN  E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E1 1	CARBOXYFERROCENE/CN
E4 1 CARBOXYGERMANE/CN E5 1 CARBOXYHEMOGLOBINS/CN E6 1 CARBOXYHEMOGLOBINS/CN E7 1 CARBOXYHEMOGLOBINS/CN E8 1 CARBOXYHOMOYESSOTOXIN/CN E8 1 CARBOXYHYDROQUINONE/CN E9 1 CARBOXYHYDROQUINONE/CN E10 1 CARBOXYIBUPROFEN/CN E11 1 CARBOXYISOXICAM/CN E12 1 CARBOXYISOXICAM/CN E12 1 CARBOXYKETENE/CN E13 1 CARBOXYKINASE (ATP) (YERSINIA PESTIS STRAIN CO92 GENE YPO0138)/CN E14 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE/CN E15 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE/CN E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (162-TYROSINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E2 1	CARBOXYFLUORESCEIN/CN
E5 1 CARBOXYHEMOGLOBINS/CN E6 1 CARBOXYHEMOGLOBINS/CN E7 1 CARBOXYHEXAHYDRO-4-METHYL-1H-PYRROLIZINIUM IODIDE/CN E7 1 CARBOXYHOMOYESSOTOXIN/CN E8 1 CARBOXYHDROQUINONE/CN E9 1 CARBOXYHDROPEN/CN E10 1 CARBOXYIFOSFAMIDE/CN E11 1 CARBOXYIFOSFAMIDE/CN E11 1 CARBOXYIFOSFAMIDE/CN E12 1 CARBOXYKETENE/CN E13 1 CARBOXYKINASE (ATP) (YERSINIA PESTIS STRAIN CO92 GENE YPO0138)/CN E14 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE/CN E15 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (162-TYROSINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E3 0>	CARBOXYFLUORESCEIN DIACETATE SUCCINAMIDE ESTER/CN
E6 1 CARBOXYHEXAHYDRO-4-METHYL-1H-PYRROLIZINIUM IODIDE/CN E7 1 CARBOXYHOMOYESSOTOXIN/CN E8 1 CARBOXYHOMOYESSOTOXIN/CN E9 1 CARBOXYIBUPROFEN/CN E10 1 CARBOXYIBUPROFEN/CN E11 1 CARBOXYISOXICAM/CN E12 1 CARBOXYKETENE/CN E13 1 CARBOXYKINASE (ATP) (YERSINIA PESTIS STRAIN CO92 GENE YPO0138)/CN E14 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE/CN E15 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (162-TYROSINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)		
E6 1 CARBOXYHEXAHYDRO-4-METHYL-1H-PYRROLIZINIUM IODIDE/CN E7 1 CARBOXYHOMOYESSOTOXIN/CN E8 1 CARBOXYHOMOYESSOTOXIN/CN E9 1 CARBOXYIBUPROFEN/CN E10 1 CARBOXYIBUPROFEN/CN E11 1 CARBOXYISOXICAM/CN E12 1 CARBOXYKETENE/CN E13 1 CARBOXYKINASE (ATP) (YERSINIA PESTIS STRAIN CO92 GENE YPO0138)/CN E14 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE/CN E15 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (162-TYROSINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E5 1	CARBOXYHEMOGLOBINS/CN
E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E6 1	CARBOXYHEXAHYDRO-4-METHYL-1H-PYRROLIZINIUM IODIDE/CN
E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E7 1	CARBOXYHOMOYESSOTOXIN/CN
E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E8 1	CARBOXYHYDROQUINONE/CN
E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E9 1	CARBOXYIBUPROFEN/CN
E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E10 1	CARBOXYIFOSFAMIDE/CN
E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E11 1	CARBOXYISOXICAM/CN
E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E12 1	CARBOXYKETENE/CN
E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E13 1	CARBOXYKINASE (ATP) (YERSINIA PESTIS STRAIN CO92 GENE YPO0138)/CN
E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E14 1	CARBOXYKINASE, PHOSPHOENOLPYRUVATE/CN
E16 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (184-TYROSINE, 263-ASPARTIC ACID, 851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E15 1	CARBOXYKINASE, PHOSPHOENOLPYRUVATE (162-TYROSINE)
ACID,851-ARGININE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN E17	(CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN	
E17 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (586-PHENYLALANINE) (CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN  E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN  E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN  E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN  E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILUS PLEUROPNEUMONIAE GENE PCKA)/CN  E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)		
(CORYNEBACTERIUM GLUTAMICUM STRAIN ATCC 13032)/CN  E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN  E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN  E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN  E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)  (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN  E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)		
E18 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHEPHYRA EXIMEA GENE PEPCK FRAGMENT)/CN E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)		
PEPCK FRAGMENT)/CN  E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN  E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN  E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)  (ACTINOBACILUS PLEUROPNEUMONIAE GENE PCKA)/CN  E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)		
E19 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)		
E20 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN E21 1 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE) (ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)		
(ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E19 1	CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ACANTHOPAGRUS SCHLEGELI)/CN
(ACTINOBACILLUS PLEUROPNEUMONIAE GENE PCKA)/CN E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)	E20 1	CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)/CN
E22 2 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)		
(ACTINOBACILLUS SUCCINOGENES GENE PCKA)/CN		·

```
CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)
E23
             1
(ACTINOBACILLUS SUCCINOGENES STRAIN 130Z GENE PCKA)/CN
E24
                 CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)
            1
(ANAEROBIOSPIRILLUM SUCCINICIPRODUCENS CLONE PPCK2/PPCK1 GENE PCKA PRECURSOR
REDUCED)/CN
                  CARBOXYKINASE, PHOSPHOENOLPYRUVATE (ADENOSINE TRIPHOSPHATE)
E25
             1
(BACILLUS SUBTILIS GENE PCKA)/CN
=> E "CARBOXY FLUORESCEIN DIACETATE SUCCINAMIDE ESTER"/CN 25
            1
                  CARBOXY/CN
E2
                  CARBOXY CPG 500/CN
E3
             0 --> CARBOXY FLUORESCEIN DIACETATE SUCCINAMIDE ESTER/CN
E4
                 CARBOXY GROUP-CONTG. ACRYLIC FIBERS/CN
            1
E.5
                 CARBOXY GROUP-CONTG. BUTADIENE RUBBER/CN
            1
                 CARBOXY GROUP-CONTG. BUTADIENE-STYRENE RUBBER/CN
E.6
            1
                 CARBOXY GROUP-CONTG. NEOPRENE RUBBER/CN
E7
            1
                 CARBOXY GROUP-CONTG. SBR/CN
E.8
            1
                 CARBOXY GROUP-CONTG. SILOXANES/CN
Ε9
            1
                 CARBOXY GROUP-TERMINATED BUTADIENE-ME METHACRYLATE SYNTHETIC
E10
            1
RUBBER/CN
E11
             1
                 CARBOXY GROUP-TERMINATED SBR/CN
E12
             1
                  CARBOXY PEPTIDASE YWIC (BACILLUS LICHENIFORMIS STRAIN ATCC 14580
GENE YWIC)/CN
                 CARBOXY RADICAL/CN
E13
            1
E14
            1
                  CARBOXY SNAFL 1/CN
                  CARBOXY SNAFL 1 DIACETATE/CN
E15
            1
E16
            1
                  CARBOXY SNARF 1AM/CN
E17
            1
                  CARBOXY TERMINAL PROCESSING PROTEASE (SINORHIZOBIUM MELILOTI
STRAIN 1021 GENE CTPA OR SMC03783 PRECURSOR SIGNAL PEPTIDE)/CN
                 CARBOXY TERMINAL PROCESSING PROTEASE PRECURSOR (THERMUS
            1
THERMOPHILUS STRAIN HB8)/CN
E19
            2 CARBOXY TERMINAL-PROCESSING PROTEINASE/CN
E20
                  CARBOXY TERMINAL-PROCESSING PROTEINASE (HELICOBACTER ACINONYCHIS
            1
STRAIN SHEEBA GENE CTPA)/CN
                 CARBOXY TERMINAL-PROCESSING PROTEINASE (KUENENIA STUTTGARTIENSIS
            1
GENE CTPA PRECURSOR)/CN
            1
                  CARBOXY TERMINAL-PROCESSING PROTEINASE (PSEUDOMONAS ENTOMOPHILA
STRAIN L48 GENE CTPA PRECURSOR)/CN
E23
                  CARBOXY TERMINUS OF HSP70-INTERACTING PROTEIN (HUMAN GENE
CHIP)/CN
E24
             1
                  CARBOXY X RED/CN
                  CARBOXY((METHYLSULFONYL)CARBAMOYL)METHANEDIAZONIUM HYDROXIDE,
            1
INNER SALT ETHYL ESTER/CN
=> S 150347-59-4/RN
            1 150347-59-4/RN
T.1
=> DIS L1 1 IDE
THE ESTIMATED COST FOR THIS REQUEST IS 2.05 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN
L1
RN
     150347-59-4 REGISTRY
     Entered STN: 30 Sep 1993
ED
     Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-ar-carboxylic acid,
     3',6'-bis(acetyloxy)-3-oxo-, 2,5-dioxo-1-pyrrolidinyl ester (CA INDEX
    NAME)
OTHER CA INDEX NAMES:
     2,5-Pyrrolidinedione, 1-[[[3',6'-bis(acetyloxy)-3-oxospiro[isobenzofuran-
CN
     1(3H), 9'-[9H]xanthen]-5(or 6)-y1]carbony1]oxy]- (9CI)
CN
     Spiro[isobenzofuran-1(3H),9'-[9H]xanthene], 2,5-pyrrolidinedione deriv.
```

## OTHER NAMES:

CN 5(6)-Carboxyfluorescein diacetate succinimidyl ester

CN CFSE

CN Vybrant CFDA-SE

MF C29 H19 N O11

CI IDS

SR CA

LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, TOXCENTER, USPAT2, USPATFULL

102 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

103 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> sel L1 chem

E1 THROUGH E4 ASSIGNED

=> index bioscience

FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 4.35 4.57

FULL ESTIMATED COST

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 15:09:43 ON 01 JUN 2009

68 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0\* with SET DETAIL OFF.

=> s e1-e4 and beryllium 2 FILE BIOENG

```
FILE BIOSIS
         2
            FILE CAPLUS
  15 FILES SEARCHED...
         2 FILE EMBASE
  34 FILES SEARCHED...
         2 FILE IFIPAT
            FILE LIFESCI
            FILE MEDLINE
  47 FILES SEARCHED...
         3
            FILE SCISEARCH
            FILE TOXCENTER
            FILE USPATFULL
            FILE USPATOLD
            FILE USPAT2
         1
  62 FILES SEARCHED...
  12 FILES HAVE ONE OR MORE ANSWERS, 68 FILES SEARCHED IN STNINDEX
L2
   QUE (CFSE/BI OR "VYBRANT CFDA-SE"/BI OR 150347-59-4/BI OR "5(6)-CARBOXYFLU
        ORESCEIN DIACETATE SUCCINIMIDYL ESTER"/BI) AND BERYLLIUM
=> s L2 and (lymphocyt## or leukocyte or t-cell# or pbl or peripheral or cd4 or
cd-4 or cd-8 or cd8)
         2 FILE BIOENG
            FILE BIOSIS
  11 FILES SEARCHED...
  13 FILES SEARCHED...
         2 FILE CAPLUS
  23 FILES SEARCHED...
         2 FILE EMBASE
  35 FILES SEARCHED...
         2 FILE IFIPAT
            FILE LIFESCI
         2
            FILE MEDLINE
         2
  47 FILES SEARCHED...
         2 FILE SCISEARCH
         5
            FILE TOXCENTER
  59 FILES SEARCHED...
         8
            FILE USPATFULL
            FILE USPATOLD
           FILE USPAT2
  66 FILES SEARCHED...
 12 FILES HAVE ONE OR MORE ANSWERS, 68 FILES SEARCHED IN STNINDEX
    QUE L2 AND (LYMPHOCYT## OR LEUKOCYTE OR T-CELL# OR PBL OR PERIPHERAL OR CD
        4 OR CD-4 OR CD-8 OR CD8)
=> d rank
F1
            8
              USPATFULL
               TOXCENTER
F2
            5
               BIOENG
            2
F3
               BIOSIS
            2
F4
               CAPLUS
F5
               EMBASE
F6
F7
               IFIPAT
F8
            2 LIFESCI
            2 MEDLINE
F9
```

F10

F11

F12

2 SCISEARCH

1 USPATOLD

1 USPAT2

=> fil f1-f10 COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 6.80 11.37

FILE 'USPATFULL' ENTERED AT 15:16:00 ON 01 JUN 2009 CA INDEXING COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'TOXCENTER' ENTERED AT 15:16:00 ON 01 JUN 2009 COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOENG' ENTERED AT 15:16:00 ON 01 JUN 2009 COPYRIGHT (C) 2009 Cambridge Scientific Abstracts (CSA)

FILE 'BIOSIS' ENTERED AT 15:16:00 ON 01 JUN 2009 Copyright (c) 2009 The Thomson Corporation

FILE 'CAPLUS' ENTERED AT 15:16:00 ON 01 JUN 2009 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'EMBASE' ENTERED AT 15:16:00 ON 01 JUN 2009 Copyright (c) 2009 Elsevier B.V. All rights reserved.

FILE 'IFIPAT' ENTERED AT 15:16:00 ON 01 JUN 2009 COPYRIGHT (C) 2009 IFI CLAIMS(R) Patent Services (IFI)

FILE 'LIFESCI' ENTERED AT 15:16:00 ON 01 JUN 2009 COPYRIGHT (C) 2009 Cambridge Scientific Abstracts (CSA)

FILE 'MEDLINE' ENTERED AT 15:16:00 ON 01 JUN 2009

FILE 'SCISEARCH' ENTERED AT 15:16:00 ON 01 JUN 2009 Copyright (c) 2009 The Thomson Corporation

=> s L3 5 FILES SEARCHED... 29 L3

=> dup rem L5 L5 IS NOT VALID HERE

The L-number entered has not been defined in this session, or it has been deleted. To see the L-numbers currently defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> dup rem L4 PROCESSING COMPLETED FOR L4 11 DUP REM L4 (18 DUPLICATES REMOVED)

=> s L5 and py<2005 8 FILES SEARCHED... 2 L5 AND PY<2005

=> d L6 ibib abs 1-2

ANSWER 1 OF 2 USPATFULL on STN 1.6 ACCESSION NUMBER: 2003:37157 USPATFULL <<LOGINID::20090601>>

Methods for enhancing antibody-induced cell lysis and TITLE:

treating cancer

Weiner, George, Iowa City, IA, UNITED STATES INVENTOR(S):

Hartmann, Gunther, Munich, GERMANY, FEDERAL REPUBLIC OF

NUMBER KIND DATE \_\_\_\_\_ US 20030026801 A1 20030206 US 7534772 B2 20090519 US 2001-888326 A1 20010622 (9) PATENT INFORMATION: APPLICATION INFO.:

> NUMBER DATE

PRIORITY INFORMATION: US 2000-213346P 20000622 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Alan W. Steele, Wolf, Greenfield & Sacks, P.C., Federal

Reserve Plaza, 600 Atlantic Avenue, Boston, MA, 02210

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 6 Drawing Page(s)

LINE COUNT: 4637

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention relates to methods and products for treating cancer. In particular the invention relates to combinations of nucleic acids and antibodies for the treatment and prevention of cancer. The invention also relates to diagnostic methods for screening cancer cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 2 OF 2 TOXCENTER COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:247144 TOXCENTER <<LOGINID::20090601>>

Copyright 2004 Wiley-Liss, Inc. COPYRIGHT:

DOCUMENT NUMBER: PubMed ID: 15221866

TITLE: Flow cytometric test for beryllium sensitivity

AUTHOR(S): Milovanova Tatyana N; Popma Sicco H; Cherian Sindhu; Moore

Jonni S; Rossman Milton D

CORPORATE SOURCE: Pulmonary, Allergy and Critical Care Division, University

of Pennsylvania Medical Center, Philadelphia, Pennsylvania

19104, USA

Cytometry. Part B, Clinical cytometry, (2004 Jul SOURCE:

) Vol. 60, No. 1, pp. 23-30.

Journal code: 101235690. ISSN: 1552-4949.

COUNTRY: United States DOCUMENT TYPE: (COMPARATIVE STUDY)

Journal; Article; (JOURNAL ARTICLE)

FILE SEGMENT: MEDLINE

MEDLINE 2004318348 OTHER SOURCE:

LANGUAGE: English

ENTRY DATE: Entered STN: 20 Sep 2005

Last Updated on STN: 27 Sep 2005

BACKGROUND: Chronic beryllium disease (CBD) is an occupational AΒ granulomatous disorder characterized by hypersensitivity to beryllium, mediated by CD4+ T lymphocytes, and predominantly affects the lungs. In this disorder, lymphocyte proliferative responses to beryllium, measured by 3H thymidine incorporation, are used for diagnosis of CBD, for screening asymptomatic workers or former workers to detect unrecognized disease, and for surveillance as a bioassay to detect abnormal exposures. Problems with test variability and the use of radioactivity have recently led to the

search for alternative methods. METHODS: We applied a 5,

6-carboxyfluorescein diacetate succinimidyl ester flow cytometric technique for measurement of mitogen- and antigen-induced T-lymphocyte proliferation to a group of beryllium-exposed sensitized individuals and beryllium-unexposed controls. RESULTS: We detected mitogen and antigen proliferative responses in CD3+, CD4+, and CD8+ subpopulations. Phytohemagglutinin and Candida stimulated CD4+ and CD8+ T-cell responses, but beryllium appeared to stimulate only CD3+/CD4+ responses. CONCLUSIONS: This technique may provide a sensitive, nonradioactive alternative to the traditional proliferation tests that measure beryllium sensitivity. It offers the added specificity of enabling phenotypic description of the responding cell type and may prove to be easier to standardize for clinical use.

=> logoff